

CLAIMS

I claim:

- 5 1. An apparatus to push objects off of a conveyor comprising:
a diverter frame having a slide support element with a push bar
attached;
an electric gearmotor attached to said diverter frame;
an output motor shaft of said electric gearmotor having a lever arm
10 attached;
a push rod having a ball end element at each end rotationally
attached at a first end to the approximate outer end of said lever arm and at a
second end to a bracket that is attached to said push bar;
a control unit for application of electric power to rotate said electric
15 gearmotor, to activate a brake of said motor and to terminate power for rotation.
2. The apparatus as in claim 1 wherein said slide support element
comprising:
a pair of rails having said push bar attached at a first end of each
20 rail and a cross bar attached at a second end of each rail; and
a plurality of guide bearings attached to said diverter frame
positioned for said rails to linearly slide on said guide bearings in to and from
motion relative to said diverter frame.
- 25 3. The apparatus as in claim 1 wherein said output motor shaft is
approximately vertically oriented relative to a horizontal plane of motion of said
push bar.
4. The apparatus as in claim 1 wherein a locking hub is attached to
30 said output motor shaft.

5. The apparatus as in claim 1 wherein said push rod is rotationally attached at said first end to said approximate outer end of said lever arm with a bushing intermediate said first end and said lever arm.

5 6. The apparatus as in claim 1 wherein said bracket is attached at a rear side of said push bar and at an approximate longitudinal center of said push bar.

7. The apparatus as in claim 1 further comprising:
10 a sensor attached to said diverter frame positioned to sense the presence of said lever arm;
said control unit in communication with said sensor to terminate electric power for rotation of said electric motor and to apply a brake biased for engagement when said electric power is terminated.

15 8. The apparatus as in claim 7 wherein said sensor is positioned offset approximately 35 degrees from a center line between said motor shaft and said bracket.

20 9. The apparatus as in claim 7 wherein said brake retards and stops rotation of said lever arm to position said push bar at a stop position.